



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 0909559D

	Page Nos.	
	From	To
1. Work Order Cover Page & Laboratory Narrative & Table	1	3
2. Sample Results and Raw Data (Organized By Sample)	4	7
a. ATL Sample Results Form		
b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary (If Applicable)		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
3. QC Results and Raw Data		
a. Method Blank (Results + Raw Data)	-	-
b. Surrogate Recovery Summary Form (If Applicable)	-	-
c. Internal Standard Summary Form (If Applicable)	-	-
d. Duplicate Results Summary Sheet	-	-
e. Matrix Spike/Matrix Spike Duplicate (Results + Raw Data)	-	-
f. Initial Calibration Data (Summary Sheet + Raw Data)	-	-
g. MDL Study (If Applicable)	-	-
h. Continuing Calibration Verification Data	-	-
i. Second Source LCS (Summary + Raw Data)	-	-
j. Extraction Logs	-	-
k. Instrument Run Logs/Software Verification	8	14
l. GC/MS Tune (Results + Raw Data)	-	-
4. Shipping/Receiving Documents:		
a. Login Receipt Summary Sheet	15	16
b. Chain-of-Custody Records	17	17
c. Sample Log-In Sheet	18	19
d. Misc. Shipping/Receiving Records (list individual records)		
<u>Sample Receipt Discrepancy Report</u>	20	21
5. Other Records (describe or list)		
a. <u>Manual Spectral Defense</u>	-	-
b. <u>Manual Intergrations</u>	-	-
c. <u>Manual Calculations</u>	-	-
d. <u>Canister Dilution Factors</u>	-	-
e. <u>Laboratory Corrective Action Request</u>	-	-
f. <u>CAS Number Reference</u>	22	23
g. <u>Variance Table</u>	-	-
h. <u>Canister Certification</u>	-	-
i. <u>Data Review Check Sheet</u>	24	24

Completed by:

Kara McKiernan

(Signature)

Kara McKiernan/ Document Control

(Print Name & Title)

10/20/09

(Date)

**WORK ORDER #: 0909559D**

**Work Order Summary**

<b>CLIENT:</b>	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	<b>BILL TO:</b>	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
<b>PHONE:</b>	800-825-5343	<b>P.O. #</b>	16512
<b>FAX:</b>	781-247-4305	<b>PROJECT #</b>	16512
<b>DATE RECEIVED:</b>	09/25/2009	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	10/16/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
48A	106820	ATL Applications
49A	106821	ATL Applications
50A	106822	ATL Applications
51A	106823	ATL Applications
52A	106824	ATL Applications
53A	106825	ATL Applications
54A	106849	ATL Applications
55A	106850	ATL Applications
56A	106851	ATL Applications
56AA	106851 Lab Duplicate	ATL Applications
57A	106852	ATL Applications
58A	106853	ATL Applications
58AA	106853 Lab Duplicate	ATL Applications
59A	106854	ATL Applications
60A	106878	ATL Applications
61A	106882	ATL Applications
62A	Lab Blank	ATL Applications
62B	Lab Blank	ATL Applications

Continued on next page

**WORK ORDER #: 0909559D**

**Work Order Summary**

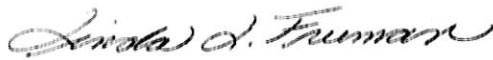
<b>CLIENT:</b>	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	<b>BILL TO:</b>	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
<b>PHONE:</b>	800-825-5343	<b>P.O. #</b>	16512
<b>FAX:</b>	781-247-4305	<b>PROJECT #</b>	16512
<b>DATE RECEIVED:</b>	09/25/2009	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	10/16/2009		

**FRACTION #**  
63A

**NAME**  
CCV

**TEST**  
ATL Applications

**CERTIFIED BY:**



Laboratory Director

**DATE:** 10/16/09

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**ATL GC Application**  
**Environmental Health & Engineering, Inc.**  
**Workorder# 0909559D**

Fourteen Radiello 170 (H<sub>2</sub>S) samples were received on September 25, 2009. The procedure involves adsorption of H<sub>2</sub>S by zinc acetate to form zinc sulfide. The sulfide is then recovered by extraction with water and addition of ferric chloride in a strongly acidic solution to produce methylene blue. Methylene blue absorbance is then measured at 665 nm using a spectrophotometer. Results are reported in uG and uG/m<sup>3</sup>.

Sampling rate of 69 mL/min for H<sub>2</sub>S was provided by the manufacturer.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Results were calculated based on 25 deg C without temperature correction. The actual exposure time was used to calculate sample concentrations and reporting limits.

An exposure time of 20160 minutes was used for the QC samples.

All media used for the sampling were supplied by the client. Blank subtraction was not performed on the sample results since the media used for Method Blanks may be from a different lot than the media used for the samples.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

## **Sample Results and Raw Data**

# AIR TOXICS LTD.

## ATL Application # 59 for RAD 170 (Hydrogen Sulfide)

Spectrophotometer

Field Sample ID.	Lab Sample ID.	Collection Date	Analysis Date	Dilution Factor	Reporting Limit (ug)	Reporting Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
106820	0909559D-48A	9/23/2009	10/1/2009	1.00	0.80	0.54	1.2	0.83
106821	0909559D-49A	9/23/2009	10/1/2009	1.00	0.80	0.54	0.89	0.60
106822	0909559D-50A	9/23/2009	10/1/2009	1.00	0.80	0.54	5.9	4.0
106823	0909559D-51A	9/23/2009	10/1/2009	1.00	0.80	0.54	1.1	0.75
106824	0909559D-52A	9/23/2009	10/1/2009	1.00	0.80	0.54	2.7	1.8
106825	0909559D-53A	NA	10/1/2009	1.00	0.80	0.54	ND	ND
106849	0909559D-54A	9/23/2009	10/1/2009	1.00	0.80	0.54	5.3	3.6
106850	0909559D-55A	9/23/2009	10/1/2009	1.00	0.80	0.54	5.3	3.6
106851	0909559D-56A	9/23/2009	10/1/2009	1.00	0.80	0.54	7.4	5.0
106851 Lab Duplicate	0909559D-56AA	9/23/2009	10/1/2009	1.00	0.80	0.54	7.4	5.0
106852	0909559D-57A	9/23/2009	10/1/2009	1.00	0.80	0.54	4.9	3.3
106853	0909559D-58A	9/23/2009	10/1/2009	1.00	0.80	0.54	3.8	2.6
106853 Lab Duplicate	0909559D-58AA	9/23/2009	10/1/2009	1.00	0.80	0.54	4.0	2.7
106854	0909559D-59A	NA	10/1/2009	1.00	0.80	0.54	ND	ND
106878	0909559D-60A	NA	10/1/2009	1.00	0.80	0.54	ND	ND
106882	0909559D-61A	NA	10/1/2009	1.00	0.80	0.54	ND	ND
Method Blank	0909559D-62A	NA	10/1/2009	1.00	0.80	0.54	ND	ND
Method Blank	0909559D-62B	NA	10/1/2009	1.00	0.80	0.54	ND	ND
CCV	0909559D-63A	NA	10/1/2009	1.00	0.80	0.54	%Rec 105	

COMMENTS: 1. NA=Not Applicable

2. ND=Not Detected

3. Exposure time of 20160 minutes was assumed for the QC samples.

4. Background subtraction not performed.

## Hydrogen Sulfide Radiello Calculation Worksheet

Workorder #: 09095590

Sampling Rate (µg/ppb.min)

0.096 Typically 0.096 for H2S

Sampling T (deg C)

25 Typically 25

Volume (ml)

10.5 Typically 10.5 for H2S

Date of Analysis:

10/1/2009

Corrected Q

0.096 Takes into account temp

(Abs-Y-int)/DF  
Slope

Conc(µg/ml)/Vol (ml)

Conc (µg sulfide) \* MW H2S  
MW SulfideQ includes conversion from  
Sulfide to H2SConc (µg) x 1000  
Q x Durationppb x mw  
24.45

LabSampleID

Client

Date of  
Collection

Abs

Duration  
(min)

DF

Conc (µg/ml) of  
sulfide

Conc (µg) of sulfide

Conc (µg) of H2S

Conc (ppb) of H2S

Conc (µg/m3) of H2S

T Corrected, no Blank correction

48A	106820	9/23/2009	0.137	20160	1.00	0.109455736	1.149285225	1.221388807	0.594	0.828
49A	106821	9/23/2009	0.105	20160	1.00	0.079694999	0.836797494	0.889296256	0.432	0.603
50A	106822	9/23/2009	0.592	20160	1.00	0.532616204	5.597470143	5.943293199	2.890	4.028
51A	106823	9/23/2009	0.126	20160	1.00	0.099275483	1.041867568	1.107232006	0.538	0.750
52A	106824	9/23/2009	0.277	20160	1.00	0.239658957	2.516419046	2.674293543	1.300	1.812
53A	106825	NA	0.027	20160	1.00	0.007153205	0.075108651	0.0798208	0.039	0.054
54A	106849	9/23/2009	0.53	20160	1.00	0.474954778	4.987025165	5.298999959	2.577	3.592
55A	106850	9/23/2009	0.529	20160	1.00	0.474024755	4.977259924	5.288512068	2.572	3.585
56A	106851	9/23/2009	0.733	20160	1.00	0.663749448	6.969369206	7.406611826	3.601	5.020
56AA	106851 Lab Duplicate	9/23/2009	0.734	20160	1.00	0.664679471	6.979134447	7.416989717	3.606	5.027
57A	106852	9/23/2009	0.488	20160	1.00	0.435893811	4.576885019	4.864028538	2.365	3.297
58A	106853	9/23/2009	0.383	20160	1.00	0.338241396	3.551534653	3.774349986	1.835	2.558
58AA	106853 Lab Duplicate	9/23/2009	0.402	20160	1.00	0.355911833	3.737074243	3.971529915	1.931	2.692
59A	106854	NA	0.021	20160	1.00	0.001573067	0.016517202	0.017553454	0.009	0.012
60A	106878	NA	0.014	20160	1.00	-0.003077048	-0.051893489	-0.055091783	-0.027	-0.037
61A	106882	NA	0.016	20160	1.00	-0.017957416	-0.188552871	-0.200382256	-0.017	-0.023
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
					1.00	-0.017957416	-0.188552871	-0.200382256	#DIV/0!	#DIV/0!
62A	Method Blank	NA	0.013	20160	1.00	-0.005867117	-0.061604731	-0.065468674	-0.032	-0.044
62B	Method Blank	NA	0.011	20160	1.00	-0.007777163	-0.081135214	-0.086275456	-0.042	-0.058
63A	CCV	NA	0.343	20160	1.00	0.301040475	3.16092499	3.359234347	1.633	2.277

QC Duration

20160

CCV Spike Amt

0.286



## **QC Results and Raw Data**

Method: Rad 170

**Wavelength:** 665 nm

$$\begin{array}{r} r = 0,9996 \\ m = 1,075 \\ b = 0,019 \end{array}$$

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
48A	1.00	0.137	106820	10.5 mL	
49A		0.105	106821		
50A		0.592	106822		
51A		0.126	106823		
52A		0.277	106824		
53A		0.027	106825		
54A		0.530	106849		
55A		0.529	106850		
56A		0.733	106851		
56AA		0.734	106851		
57A		0.488	106852		
58A		0.383	106853		
58AA		0.402	106853		
59A		0.021	106854		
60A		0.014	106878		
61A		0.016	106882		
B/K		0.013	N/A		Lot: 09075 ↓
B/K		0.011	↓		0.133 µg/mL
LCS		0.166	↓		0.286 µg/mL
CCV	↓	0.343	↓	↓	
				MJS	10/2/09

Page 31

10/2/09  
Date

# Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1858

Standard ID: 1858-47

Project: Ferric Chloride Solution Rad170

Analyst: M. Skidmore

Preparation Date: 9/23/09

Expiration Date: ~~3/23/10~~ 9/23/09 9/23/09

Solvent: D.I. H<sub>2</sub>O

Solvent Lot #: N/A

Procedure/Comments: Dissolve 25g of ferric chloride hexahydrate (located in ER2C lot: 73297 MJ) in 10.0 mL of D.I. H<sub>2</sub>O.

MJS  
9/23/09

# Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1858

Standard ID: 1858-64

Project: Rad 170 Amine Solution

Analyst: M. Skidmore

Preparation Date: 9/30/09

Expiration Date: 10/30/09

Solvent: H<sub>2</sub>SO<sub>4</sub> / H<sub>2</sub>O

Solvent Lot #: N/A

## Procedure/Comments:

### Sulfuric acid solution:

Slowly add 6.25 mL of concentrated sulfuric acid to 2.5 mL of DI H<sub>2</sub>O, and let the solution cool. (sulfuric acid lot: 06011DA)

### Amine solutions

Dissolve 1.6875 g of N,N-dimethyl-p-phenylenediammonium oxalate (located ERIA, lot: 63797PJ) in the above mentioned sulfuric acid solution. Dilute this solution to 250 mL with sulfuric acid - water 1:1 v/v, (this is roughly 120 mL H<sub>2</sub>O + 120 mL H<sub>2</sub>SO<sub>4</sub>)

MJS  
9/30/09

# Spectrophotometer Standard Preparation Log

@Air Toxics Ltd.

Log Book #: 1858

Standard ID: 1858-70

Project: Calibration Solution Rad 170

Analyst: M. Skidmore

Preparation Date: 10/1/09

Expiration Date: 10/1/09

Solvent: D.I. H<sub>2</sub>O

Solvent Lot #: N/A

## Procedure/Comments:

Solution A: 2 mL of Code Rad 171 (1476-984, exp 8/6/10) (located in ER1B) with 98 mL of D.I. H<sub>2</sub>O = 1.145 µg/mL

Solution B: 2.5 mL of Solution A with 2.5 mL of D.I. H<sub>2</sub>O = 0.572 µg/mL

Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H<sub>2</sub>O = 0.286 µg/mL

Solution D: 0.625 mL of Solution A with 4.375 mL of D.I. H<sub>2</sub>O = 0.143 µg/mL

Solution E: 0.375 mL of Solution A with 5.625 mL of D.I. H<sub>2</sub>O = 0.0716 µg/mL

Note: Each solution was measured immediately after it was prepared. Solution A is only stable in the flask it was prepared in.

MJS 10/1/09

MJS 10/5/09

# Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1858

Standard ID: 1858-71

Project: H<sub>2</sub>S ICV Rad 170

Analyst: ky

Preparation Date: 10/1/09

Expiration Date: 10/1/09

Solvent: DI H<sub>2</sub>O

Solvent Lot #: NA

Procedure/Comments: \_\_\_\_\_

\_\_\_\_\_ Solution A: 2 mL of Code Rad 171 (1476-984, exp 8/6/10) (located in ER1B) with  
\_\_\_\_\_ 98 mL of D.I. H<sub>2</sub>O = 1.145 µg/mL

\_\_\_\_\_ Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H<sub>2</sub>O = 0.286 µg/mL

\_\_\_\_\_ Note: Each solution was measured immediately after it was prepared. Solution A is only  
\_\_\_\_\_ stable in the flask it was prepared in.

Signed

10/1/09  
Date

Reviewed  
Date 10/6/09

# Spectrophotometer Standard Preparation Log

@Air Toxics Ltd.

Log Book #: 1858

Standard ID: 1858-72

Project: Ferric Chloride - Amine

Analyst: M. Skidmore

Preparation Date: 10/1/09

Expiration Date: 10/1/09

Solvent: DI H<sub>2</sub>O

Solvent Lot #: N/A

Procedure/Comments: 6.5 mL of ferric chloride (1858-47)  
with 32.5 mL of amine solution (1858-64).

## **Shipping/ Receiving Documents**

**180 Blue Ravine Road, Suite B  
Folsom, CA 95630**

**Phone (916) 985-1000 FAX (916) 985-1020  
Hours 8:00 A.M. to 6:00 P.M. Pacific**

COMPANY: Environmental Health & Engineering, Inc.  
ATTENTION: Mr. Taeko Mineglshi  
FAX #: 781-247-4305  
FROM: Sample Receiving  
Workorder #: 0909559D  
# of pages (Including Cover): 4

10/20/2009

Thank you for selecting Air Toxics Ltd. We have received your samples and have found no discrepancies.  
In order to expedite analysis and reporting, please review the attached information for accuracy.

Corrections can be faxed to **Ausha Scott at 916-985-1020.**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

# CHAIN OF CUSTODY FORM

DATE: 9/24/09  
FROM: Environmental Health and Engineering, Inc.  
117 Fourth Avenue  
Needham, MA 02494-2725  
0909559

TO: AIR TOXICS

Please send invoices to ATTN: Accounts Payable  
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

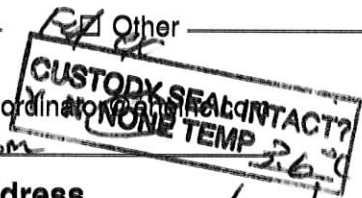
The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA ☒

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER: Time/Date/Vol.
106820	AIR/PASSIVE	H <sub>2</sub> S ANALYSIS	9/23/09
106821			
106822			
106823			
106824			
106825			
106849			9/23/09
106850			
106851			
106852			
106853			
106854			
106878			
106882			

## Special Instructions:

- ☒ Standard turn around time  
☐ Fax results 781-247-4305  
☐ RETURN SAMPLES  
☒ Additional report recipient mfrugala@ehinc.com  
☐ Rush by \_\_\_\_\_ date/time  
☒ Electronic transfer - data coordinator 9/24/09  
☒ Other \_\_\_\_\_



Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 9/24/09  
Received by: [Signature] of (company name) ATI Date: 9/23/09  
Relinquished by: \_\_\_\_\_ of (company name) \_\_\_\_\_ Date: \_\_\_\_\_  
Received by: \_\_\_\_\_ of (company name) \_\_\_\_\_ Date: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ of (company name) \_\_\_\_\_ Date: \_\_\_\_\_  
Received by: \_\_\_\_\_ of (company name) \_\_\_\_\_ Date: \_\_\_\_\_  
Lab Data  
Received by: \_\_\_\_\_ of Environmental Health & Engineering, Inc. Date: \_\_\_\_\_  
Page 4 of 4

## SAMPLE RECEIPT SUMMARY

### WORKORDER 0909559D

**Client**

Mr. Taeko Minegishi  
Environmental Health &  
Engineering, Inc.  
117 Fourth Avenue  
Needham, MA 02494

**Phone**

800-825-5343

**Fax**

781-247-4305

**Date Promised:** 10/06/09 11:59 pm

**Date Completed:** 10/16/09

**Date Received:** 9/25/09

**PO#:** 16512

**Project#:** 16512

**Sales Rep:** TL

**Total \$:** \$ 770.00

**Logged By:** MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
48A	106820	ATL Applications	9/23/2009	\$50.00
49A	106821	ATL Applications	9/23/2009	\$50.00
50A	106822	ATL Applications	9/23/2009	\$50.00
51A	106823	ATL Applications	9/23/2009	\$50.00
52A	106824	ATL Applications	9/23/2009	\$50.00
53A	106825	ATL Applications	NA	\$50.00
54A	106849	ATL Applications	9/23/2009	\$50.00
55A	106850	ATL Applications	9/23/2009	\$50.00
56A	106851	ATL Applications	9/23/2009	\$50.00
56AA	106851 Lab Duplicate	ATL Applications	9/23/2009	\$0.00
57A	106852	ATL Applications	9/23/2009	\$50.00
58A	106853	ATL Applications	9/23/2009	\$50.00
58AA	106853 Lab Duplicate	ATL Applications	9/23/2009	\$0.00
59A	106854	ATL Applications	NA	\$50.00
60A	106878	ATL Applications	NA	\$50.00
61A	106882	ATL Applications	NA	\$50.00
62A	Lab Blank	ATL Applications	NA	\$0.00
62B	Lab Blank	ATL Applications	NA	\$0.00
63A	CCV	ATL Applications	NA	\$0.00

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.  
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

**BILL TO:** Accounts Payable  
Environmental Health & Engineering, Inc.  
117 Fourth Avenue  
Needham, MA 02494

Analysis Code: Other GC

**TERMS:**

Reporting Method: ATL Application #59 H2S-Radiello 170

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

## SAMPLE RECEIPT SUMMARY Continued

**Client**

Mr. Taeko Minegishi  
Environmental Health &  
Engineering, Inc.  
117 Fourth Avenue  
Needham, MA 02494

**Phone**

800-825-5343

**Fax**

781-247-4305

**Date Promised:**

**Date Completed:** 10/16/09

**Date Received:** 9/25/09

**PO#:** 16512

**Project#:** 16512

**Total \$:** \$ 770.00

**Logged By:** MW

**Sales Rep:**

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
Misc. Charges eCVP (14) @ \$5.00 each.				\$70.00

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.  
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

**BILL TO:** Accounts Payable  
Environmental Health & Engineering, Inc.  
117 Fourth Avenue  
Needham, MA 02494

Analysis Code: Other GC

**TERMS:**

Reporting Method: ATL Application #59 H2S-Radiello 170

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

# Sample Discrepancy Report

## Identification

Initiated By: MW Project ID: 13297 PM: AS Date: 9/25/09 Discrepancy Type: ☒ 1. ☐ 2. ☐ 3.

Workorder(s) affected: 0909559D Sample(s) affected: 55A-58A

## 1. Sample Receipt Discrepancies

### Narration Not Required:

- 1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.
- 1.2. ☐ No brass cap on canister.
- 1.3. ☒ Date of Collection noted on first sample, but no arrow down to indicate all samples.

### Notify Lab for further determination:

- 1.4. ☐ Tedlar bag received with minimal volume.

Initials: \_\_\_\_\_ Date: \_\_\_\_\_

### Narration Required in Lab Narrative and Sample Confirmation:

- 1.5. ☐ COC was not filled out in ink.
- 1.6. ☐ COC improperly relinquished / received.
- 1.7. ☐ Sample tags / can numbers do not match the COC.
- 1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).
- 1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ Improperly placed (check one).
- 1.10. ☐ ID-none on the sample Tag/Blank
- 1.11. ☐ Other (describe below).

Describe the Discrepancy: no need to narrate

## 2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

### If Section II. is filled out PM must be notified within 24 hrs of Initiation

- 2.1. ☐ COC was not received with samples.
- 2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.
- 2.3. ☐ Incorrect sampling media / container for analysis requested.
- 2.4. ☐ Number of samples on the COC does not match the number of samples that were received.
- 2.5. ☐ Samples were received expired.
- 2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ some / ☐ any samples (check one).
- 2.7. ☐ Sample received with amount of H<sub>2</sub>O in the Tedlar Bag.
- 2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.
- 2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.
- 2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.
- 2.11. ☐ Environmental Supply Company valves
- 2.12. ☐ Sorbent samples-sampling volume was not provided
- 2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.
- 2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):
  - ☐ Canister failed leak check on two manifolds,
  - ☐ Canister valve was open,
  - ☐ Brass nut was loose/not present.
  - ☐ Sample can be analyzed
  - ☐ Cannot be analyzed
- 2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.
- 2.16. ☐ Canister sample received at >15"Hg (not identified as a Trip/Field Blank).
- 2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).
- 2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ Ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).
- 2.19. ☐ Other (describe below)

Initials: \_\_\_\_\_ Date: \_\_\_\_\_ Notify Receiving: ☐ Notify PM: ☐

Describe the Discrepancy: \_\_\_\_\_

### 3. Lab Discrepancies requiring Team Leader/PM notification

*Document in Analytical Notes of Lab Narrative*

#### **If Section III. is filled out PM must be notified within 24 hrs of Initiation**

- |  |  |
|--|--|
| 3.1. <input type="checkbox"/> Tedlar Bag found to be leaking at the time of analysis; sample <input type="checkbox"/> can / <input type="checkbox"/> cannot (check one) be analyzed. | 3.6. <input type="checkbox"/> Sample loss due to Instrument malfunction / broken glassware.                |
| 3.2. <input type="checkbox"/> Tedlar Bag found to be flat/low volume; sample cannot be analyzed.   | 3.7. <input type="checkbox"/> Low/high surrogate recoveries noted in QC/sample(s) for extractable samples. |
| 3.3. <input type="checkbox"/> Sulfur samples received with insufficient time to analyze prior to expiration.   | 3.8. <input type="checkbox"/> Reporting Limit was raised.  |
| 3.4. <input type="checkbox"/> Canister found to be leaking at the time of analysis.  | 3.9. <input type="checkbox"/> Post weight > Pre weight in field/lab Blank for PM10/TSP samples.            |
| 3.5. <input type="checkbox"/> VOST tube saturated; bag dilution necessary.   | 3.10. <input type="checkbox"/> Other (describe below).   |

Initials: \_\_\_\_\_ Date: \_\_\_\_\_ Notify Receiving: ☐ Notify PM: ☐

Team Lead Initials: \_\_\_\_\_ Date: \_\_\_\_\_

Describe the Discrepancy: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How Does this Affect Client: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### **Project Manager Use Only**

##### **Project Manager Notification**

☐ Section 2 Complete

☐ Section 3 Complete

##### **Action:**

- ☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials: \_\_\_\_\_ Date: \_\_\_\_\_

- ☐ Client notification required. See attached client contact / email, or comments below:

##### **Client Notification:**

PM Initials: \_\_\_\_\_ Person notified: \_\_\_\_\_ Date: \_\_\_\_\_

- ☐ Waiting for Client Reply

Comments: \_\_\_\_\_

\_\_\_\_\_

☐ Notify Lab Name: \_\_\_\_\_ Date: \_\_\_\_\_ Notify Receiving: ☐

- ☐ Additional notifications attached.

##### **Additional Comments:**

\_\_\_\_\_

## **Other Records**

Method : ATL Application #59 H2S-Radiello 170

CAS Number	Compound	Rpt. Limit (ug)
7783-06-4	Hydrogen Sulfide	1.2

Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)  
The final report has the correct reporting list, special units, and header info.  
Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)  
Sample Discrepancy Report (SDR) is completed  
Corrective Action issued - # \_\_\_\_\_  
Unusual circumstances have been documented in the notes section below

**CIRCLE (YES / NO)**

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Correct amount of sample analyzed (i.e. sample not over-diluted)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>		Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>		TICs resemble reference spectra
		<input checked="" type="checkbox"/>	<input type="checkbox"/>		TICs between duplicate samples are consistent
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Data for multiple analyses of sample(s) has been evaluated for comparability of results
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Special units for all samples in the final report are correctly calculated
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Manually entered results checked (i.e. TPH/NMOC)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		<input checked="" type="checkbox"/>			Chain of Custody scanned correctly
			<input type="checkbox"/>		Verify sample id's vs. chain of custody
		<input checked="" type="checkbox"/>			Date MDL(s) performed per instrument(s) <u>9/4/09</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Samples pressurized w/ appropriate gas (N <sub>2</sub> or He)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Final pressure consistent with canister size (6L vs. 1L)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Verify receipt pressures
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Verify canister ID #'s
		<input type="checkbox"/>	<input checked="" type="checkbox"/>		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
			<input checked="" type="checkbox"/>		MDL date(s) present for all instruments utilized
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Client LUMEN report reviewed for accuracy and completeness

**MR:**

W/O:

A <sub>1</sub> /A <sub>2</sub> (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A <sub>1</sub> :	R: <i>M. S. [Signature]</i>	M: <i>10/16/09</i>	
A <sub>2</sub> :	T:		

**Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.** Rev. 02/20/09  
**Note (2): Management reviewer and reporting reviewer must be separate individuals.**